

Pre-Council Meeting

Floodplain & Drainage Issues December 5, 2005

Meeting Began at: 9:51 a.m.

Meeting Ended at: 10:25 a.m.

City Council Members Present: Ken Svoboda, Dan Marvin, Annette McRoy, Patte Newman, and Robin Eschliman

City Council Members Absent: Jon Camp and Jonathan Cook

City Staff Present: Nicole Fleck-Tooze, Karl Fredrickson, Ben Higgins, Devin Biesecker, and John Callen – Public Works & Utilities

Others Present: Glenn Johnson – Lower Platte South Natural Resources District; and Brian Dunnigan – Nebraska Department of Natural Resources.

INTRODUCTION:

Ken Svoboda called the meeting to order stating that before us we have Public Works and the NRD (Natural Resources District) with us and this Pre-Council is to talk about floodplain mapping. Ken asked those making the presentation to introduce themselves.

Nicole Fleck-Tooze introduced herself as being with the Public Works & Utilities Department. With her is Glenn Johnson who is the General Manager with the Lower Platte South Natural Resources District. We also have some other staff from Public Works & Utilities, as well as Brian Dunnigan, the State Floodplain Manager from the Department of Natural Resources.

PRESENTATION:

Nicole Fleck-Tooze (Attachment 'A' – Slide 2) stated that Glenn will start out by giving a background of the floodplain mapping effort that we have going and talk about the floodplain map updates that we have for four different stream reaches in Lincoln. Then I will talk about the items that you have on your list for public hearing on December 12, the text revisions, resolutions for floodplain updates, and about our public process.

Glenn Johnson (Attachment 'A' – Slide 3) first spoke about the whole map modernization that the Federal Emergency Management Agency (FEMA) has initiated this year. It is a five year program nationwide to update and upgrade the floodplain maps across the whole nation. One of the processes they are using is to work very closely with states and local communities under the Cooperating Technical Partners program to have those communities directly involved in that process. One of the other issues they are trying to address is to convert these maps from paper maps to digital maps and tie it in with GIS (Geographic Information System) so that they are much more useable, informative, and easier for people to use and read. The other aspect of it is using the best technology and the most updated information to try and make the maps as accurate as possible.

(Attachment 'A' – Slide 4) The Mayor's Floodplain Task Force met from August 2001 to March 2003 and developed a series of recommendations on updating floodplain standards and mapping for the City of Lincoln and the surrounding area. One of the approaches is they want to do it comprehensively, looking at it on a watershed basis rather than individual stream segments and just the floodplain itself. So looking at the whole watershed, the City and Natural Resources District have been working for several years now on master stormwater planning, on a basin by basin basis to look at the whole aspect of stormwater quantity and quality, and to tie in with that updating the floodplain maps as those master plans are completed using the best available information and technology. One of the other goals the Task Force had was to make the floodplain mapping as accurate as possible using the updated technology and best data available.

(Attachment 'A' – Slide 5 and Attachment 'B-1') You have some maps provided for you, the first one is an overall map of the City of Lincoln showing the floodplains in the City of Lincoln with the different basins shaded in gray that have been involved in this particular study. The City is a Cooperating Technical Partner with FEMA and in this process they have been looking at five streams for updating the floodplain mapping. Those include the Beal Slough watershed in southern Lincoln following Highway 2; SE Upper Salt Creek on the south side of Beal Slough, on the east side of Wilderness Park; Stevens Creek, east of Lincoln; Cardwell Branch, which is on the west side of Wilderness Park, southwest Lincoln; and next week you will have a briefing on the Salt Creek floodplain mapping and the status of that through Lincoln. The mapping is being conducted by professional consultants using FEMA to review the work as it proceeds and is being done in conformance with FEMA's guidelines and specifications for flood hazard mapping partners.

(Attachment 'A' – Slide 6) Two of the terms we will be using today are 'floodplain' and 'floodprone'. Floodplain is the term that FEMA uses and that is what is shown on the FEMA regulatory maps as being the area within the 100-year floodplain that is mapped. Floodprone is a term that the City has developed as they have gone through these updated studies to differentiate between what has been mapped by FEMA and those areas of 100-year flood threat which have the same level of risk, but are beyond or outside of those areas or farther upstream than what FEMA has mapped. So you will have a map that may have both FEMA mapped floodplains and upstream of that or to the outside of that you will have floodprone areas and they really have the same effect in terms of the risk from flooding.

Annette McRoy: Why are we doing that approach, the floodprone, which is more than you describe as FEMA has on the maps?

Glenn Johnson: FEMA's mapping in the past has generally not gone very far off any of the tributaries. They basically stayed on the main channel and then cut off their studies just at the tributaries. When the City and the NRD went into the stormwater master planning we actually looked and evaluated the flood threat all the way up the tributaries to a basin that is 150 acres or less. We took it farther up the streams and up the tributaries. So the floodplain actually extends farther, FEMA only mapped it to here, and our study actually shows how far it does extend up the streams.

Annette McRoy: That is the floodprone areas?

Glenn Johnson: Yes, that's the floodprone areas.

Dan Marvin: When we submit all this stuff to FEMA, at some point will they incorporate what we define as floodprone and put that in as what they consider floodplain?

Glenn Johnson: Yes. Once adopted by FEMA it will be become floodplain under their terminology.

Ken Svoboda: Is that a federal mandate that municipalities do that, jurisdictions do that floodprone mapping, going beyond what FEMA already is asking for?

Glenn Johnson: To my knowledge, that's a local decision that was made here and not a federal mandate. That may be something that Brian could answer.

Ken Svoboda: But whatever we do here becomes part of FEMA's 100-year floodplain.

Glenn Johnson: Right. Part of the local effort in the Cooperating Technical Partners program is that FEMA has minimum standards and if the community wishes to look farther and have a different set of standards they can do that under that program.

Nicole Fleck-Tooze: When we finish up we can ask Brian Dunnigan to speak to that. I think different communities are all doing it a little differently nationwide but I think there is more of a trend to getting that updated mapping and more accurate mapping more thoroughly than FEMA has done in the past. So the historic maps did not go as far upstream.

Patte Newman: And the benefit is to let people know that they are in an area that is in the floodplain.

Nicole Fleck-Tooze: Absolutely.

Robin Eschliman: Is Omaha doing this?

Nicole Fleck-Tooze: Omaha is definitely doing some floodplain map updates through the Cooperating Technical Partners program. They are working through the Papio Natural Resources District and I can't tell you exactly which watersheds they are in the process of updating but we could ask that question.

Robin Eschliman: Are they going upstream further like we are?

Nicole Fleck-Tooze: I would need to visit with them and see what their mapping parameters are.

Glenn Johnson went over the four maps that are going to be in front of the Council for being proposed as best available information for use in floodplain administration. The first one is the Beal Slough floodplain (Attachment 'A' – Slide 7 and Attachment 'B-2'). As part of the stormwater overall planning, a master plan was prepared for the Beal Slough basin and adopted by City Council in 2000. As part of the Cooperating Technical Partners program, because the master plan did not originally include the floodplain map update, it has been added since that time to take the master plan model and technical information and update it to conform with the FEMA mapping guidelines and produce an updated floodplain/floodprone area map. The current maps that are in effect come from 1978 data and they only showed eight stream miles of floodplain in the Beal Slough watershed. The updated maps, and this is where we get into the floodprone area, shows a total of 17 stream miles once you go up the tributaries and farther up the main stream following and mapping that 100-year floodplain. The new maps would update all of those. The upper part of the Beal Slough watershed is in the New Growth Area and the new floodplain regulations that the City has already adopted for the New Growth Areas apply out there and the rest of it is in the Existing Urban Area as you can see by the two shadings on the map.

Patte Newman: Most of us on the Council have received an e-mail from someone who was very concerned because she said the City came up with the Beal Slough Master Plan and continued to let developers fill and her property was then put into the floodplain, not because of the floodprone area, but because that floodplain extended. Is that true and what is the liability of the City when we have this information and we continue to let things develop and let fill be brought in? Does she have a legitimate complaint?

Nicole Fleck-Tooze: I think I know who you received the e-mail from and certainly as Beal Slough has developed there has been an increase in flow over time that has contributed to a larger floodplain. What you see identified here today is very similar to what was mapped as part of the master planning effort and adopted in 2000. I don't think there have been changes in just the past couple of years that would have had an impact, it would have been more of a historical change as the watershed developed over time.

Patte Newman: But using this best available information is something that we absolutely have to do.

Nicole Fleck-Tooze: Certainly in terms of our obligation to help people understand what the flood hazard is and how they can protect their businesses and homes, we believe it is.

Glenn Johnson stated the next watershed is the SE Upper Salt Creek watershed on South 27th Street, South 40th Street down to Saitillo and Rokeby Road area (Attachment 'A' – Slide 8 and Attachment 'B-3'). It's all on the east side of Wilderness Park and essentially all of it is north of the proposed and planned South Beltway corridor. This is an area in which there was no current FEMA mapping. FEMA did not include any of these tributaries within their 1978 - 1986 mapping. When we did the master plan for the SE Upper Salt Creek watershed which was adopted in 2003, it identified 9½ stream miles of 100-year floodprone area. One of the recommendations in the master plan was for the City to acquire conservation easements over the entire 100-year floodplain within that particular watershed. That was one of implementation techniques for that master plan and those are underway. That is one reason why you will notice on this map its only the light blue area, there is no floodway shown at this point in time because all of that identified floodprone area is either going to be under a conservation easement is involved in the South Beltway corridor designated area.

(Attachment 'A' – Slide 9 and Attachment 'B-4') The Cardwell Branch, this particular basin was studied by the U.S. Geological Survey to develop revised floodplain mapping, again as part of a master plan for Cardwell Branch. This area is in the near-term growth area as shown in the Comprehensive Plan. There are 12 stream miles within that basin that were studied in this go around, only five miles of that had detailed study by FEMA previously, so there is an additional seven miles of floodprone area that has been identified.

(Attachment 'A' – Slide 10 and Attachment 'B-5') The final one is Stevens Creek. This watershed was actually updated as part of the master plan for the Stevens Creek watershed. A new floodprone area map was adopted in 2004. The particular revision being proposed in this map involves a fairly small area to reflect grading that was completed after the 2004 map was published and adopted in the Prairie Village area and also to account for some stormwater detention in the Northern Lights subdivision. The other thing it does, in the original 2004 map, five of the NRD's ten flood control dams were completed at that time and included in the study. The other five are completed or in construction at this point and so it updates the maps to include the effects of all ten dams. This area is in the New Growth Area except for the area where it is being updated right now. A lot of that small area is in the Existing Urban Area.

Patte Newman: Can you explain that? I thought it was based on the city limits. Why is 84th & Adams, which has not yet been annexed, why is that existing?

Nicole Fleck-Tooze: Anything that had zoning other than AG or AGR as of the date of the standards in May 2004 was within the Existing Urban Area and this portion did have that zoning.

Patte Newman: The northeast side of 84th & Adams was?

Nicole Fleck-Tooze: This is the southeast side. South of Adams and east of 84th.

Nicole Fleck-Tooze stated she would talk about the specific items on the Council agenda (Attachment 'A' – Slide 11). They are introduced on today's agenda for public hearing on December 12th. Items 21 - 24 are four ordinance items, these are parallel text changes, text revisions to Title 26 – the Subdivision Ordinance and Title 27 – the Zoning Ordinance, regarding the use of best available information. Items 25 & 26 are two related resolutions to update the flood maps for all or portions of streams within the Existing Urban Area. Items 27 & 28 are two resolutions unrelated to the text changes to update flood maps for streams within the New Growth Area.

(Attachment 'A' – Slide 12) To give you a background for the text revisions, in 2004 when the flood standards for New Growth Areas were adopted there was an inconsistency that was created regarding where we recognize updated information for floodplains. It was recognized in the New Growth Area but not within the Existing Urban Area. While a great deal of the mapping efforts that the City and the NRD do are associated with master plans for new growth areas we do have some mapping efforts either completed or underway which are for the existing urban areas. So we see some updated information that needs to be applied to these areas. The purpose of the text changes is simply to make revisions so that we are consistently applying the updated information and most accurate information with regard to our floodplains. The revisions also clarify that the floodway boundaries may be part of the updated information. This is something that is implied by the current language but not explicitly stated. One of the most important things to recognize is that these revisions do not impact the measures that are required for development within the floodplain. None of those provisions change, it is simply a methodology to use the most updated information.

(Attachment 'A' – Slide 13) On the floodplain map updates there are four resolutions. Two of these are related to our proposed text changes where either all or a portion of the watershed or the floodplain area is within the Existing Urban Area. Glenn talked about both of these as being applied to both Beal Slough and to the updated tributary of Stevens Creek. We also have two floodplain map updates which are unrelated to the text changes and basically conform to the language in the New Growth Area standards for updating maps: SE Upper Salt Creek and Cardwell Branch.

(Attachment 'A' – Slide 14) To give you an example about the necessity for the text revision. When we look at the Beal Slough floodplain as Glenn mentioned the areas in beige are within the Existing Urban Area in the lower reaches of the watershed and the smaller area in white in the upper portions of the watershed is representing the

New Growth Area. Without the text change we are using outdated or inaccurate information for the whole portion of the lower reaches of Beal Slough watershed. Ultimately we are using some inconsistent information depending on what kind of application comes forward. We have been advised by the Law Department where we have an application that is not by right, say a change of zone, a use permit, a PUD, to make sure we are applying this new information. We have the updated information, and it will be reflected in the relatively near term on the FEMA maps. However, in order for this information to be applied by the Building & Safety Department as individual floodplain permits or building permits are issued the text revisions are really needed to apply that consistently. Beal Slough is an example of a watershed where you would have an artificial boundary drawn along that line of where you are applying the updated information versus where you are not.

(Attachment 'A' – Slide 15) With regard to the public process, mapping for each stream reach had an extensive public process. For Beal Slough and SE Upper Salt Creek, both of those watersheds had a long master planning public process, 3 years for Beal Slough and 2½ years for SE Upper Salt Creek. For each of those watersheds there were floodplain mapping updates done as part of that master planning process. In addition to that as we updated those master plans for this effort to conform to the FEMA guidelines for mapping updates and we had two additional open houses, one in November 2004 and another in August 2005. In addition to that, we have met with neighborhood groups and individuals.

For Stevens Creek, that floodprone area was adopted as a whole in 2004 (December of last year), after about a year of extensive public process, advisory committee meetings, etc. and the update that is before you next week reflects the input that we received during that public process. I think it simply benefits the property in removing those from the floodplain to identify what has been done with regard to final grading.

Cardwell Branch, we have had three open houses since November 2004. We also had numerous meetings with homeowners and with individuals in that watershed. So we really tried to help people understand what is happening and what the implications of the map updates are.

(Attachment 'A' – Slide 16) We also provided mapping and models to the engineering community in July and August. In July they were provided for Cardwell Branch and on August 1st, I think your fact sheets may say the 17th, but it was actually the beginning of August when we provided all the remainder of the models to the engineering community for their use and review. We have done one thing that really goes above and beyond what communities typically do when working with FEMA on these map updates, and that is to offer elevation surveys to property owners who are on the mapping boundary where it is not crystal clear whether they are in or outside the of floodplain area. All of those determinations need to be made through very specific elevation surveys and we offered that as a service to anybody who wished to do so in each of these watersheds. We have offered that to homeowners and business owners who have wished to have it done.

(Attachment 'A' – Slide 17) To summarize, we are expecting it will be anywhere from 1 - 2 years before the FEMA maps are finalized and adopted by Lincoln as a community using this best available information. We think that we need to be using the most up-to-date information so we can better protect our homes and our businesses from flood hazards. And improving the accuracy of floodplain mapping is very consistent with the policies that we have adopted in the Comprehensive Plan.

Dan Marvin: I think it would be helpful to talk about the changes in the floodways and the impact that has on businesses.

Nicole Fleck-Tooze: There are some mapping updates to the floodway, as well as the floodprone area, and there are some greater restrictions within the floodway. The floodway is the area that is reserved to convey flood waters. It basically is identified to meet those minimum flood standards so that we don't get greater than one foot of rise within the floodplain cross section. For any structures which are identified within the floodway there are some additional standards that relate to basically a no rise in the 100-year flood elevation.

Dan Marvin: Then there are restrictions if you were to build within the floodway.

Nicole Fleck-Tooze: Right. No new residential structures within the floodway and any construction that is done has to show that it is not creating a rise in flood heights.

Dan Marvin: There are very few businesses or can you quantify how many people?

Nicole Fleck-Tooze: The number of additional structures, I don't think that we have any in any of the watersheds with the exception of Beal Slough. I don't know if we have a number for floodways.

John Callen: Not for floodways.

Nicole Fleck-Tooze: We can get you that number.

Dan Marvin: Fleming is one of them, isn't it?

Nicole Fleck-Tooze: No, the structure is not. It is on the property, but not affecting the structure on that property.

Dan Marvin: On the floodprone, any number on how many new structures we might be touching with the remapping on the floodprone? Primarily in Beal Slough, that's the one that touches the largest number of the built area, Cardwell wouldn't and some of these others.

Nicole Fleck-Tooze: That's right. Beal Slough does have the greatest number because it is an already urbanized area and there are approximately 160 residential structures and about 15 commercial structures within Beal Slough. *[Note: Corrected numbers have been provided to the City Council regarding this question, identifying 89 homes and 8 businesses in the floodprone area which were not identified on the FEMA maps as being within the floodplain.]*

Dan Marvin: That are now going to be touched under the remapping of the floodprone area?

Nicole Fleck-Tooze: That's right. Those are structures that are in the floodplain and we are identifying them as being subject to those flood hazards with this update.

Dan Marvin: What I've heard from people is the "put your head in the sands" approach. If we didn't do it this way, we just stuck our head in the sand, then these people would not be forced to buy flood insurance, and we could pretend like this water is not going to go there. So I would like to know if there is an appeal process, and would like to know about the reliability that you have in terms of the new mapped areas. Water does flow down hill so it seems to be that you have to know where it is going to go. Can you address those issues, the appeal process, and the confidence level that you have when you map them in like that. Also address why don't we just not do anything.

Nicole Fleck-Tooze: There is an appeal process, I think the code has it set up as a special permit that can be applied for that would go to this body in order to not meet the standards that are identified. With regard to the mapping, if a person is able to show there is a technical flaw in the study, there is an appeal process that they can either make to us or they can also make to FEMA during that draft map. The draft map from FEMA I believe is published for a six month period during which there is an appeal process for mapping and accuracies. With regard to our confidence level, I think we have a really high confidence level. The engineers that are working on these studies are very well qualified in the area of hydrology and hydraulics. They are working according to the FEMA guidelines and specifications. We've had a review as well by our staff and some initial reviews by FEMA for these watersheds. So we have a high level of confidence that this is accurate information. If there should be some change or something that needs to be modified, for example the work that we are doing on Stevens Creek with regard to grading that happened after the information that we initially had developed for Stevens Creek, we can always incorporate that and it can be reflected in the maps at a later date. One of the reasons why we are doing this is obviously in regard to protecting people's property. They don't have an opportunity to know that they are in a flood hazard area necessarily, if this information is not published and utilized. This is the information down the road that FEMA will use to determine where flood insurance is needed, but also the information that Building & Safety can use to make sure we have elevated or otherwise protected new development within the floodprone area.

Dan Marvin: One issue other issue, the grandfathering. These 160 properties that are put in that aren't currently in, they are capable of buying FEMA insurance and be grandfathered in at a lower rate. Is that correct?

Nicole Fleck-Tooze: That's right.

Dan Marvin: People need to know that they can get this discount.

Nicole Fleck-Tooze: Absolutely, that is one of the benefits of us having this information in advance so they can get that insurance at a lower rate.

Dan Marvin: Does that transfer from one property owner to the next?

Nicole Fleck-Tooze: Yes, as long as it is continuous coverage.

Annette McRoy: Some of the things I hear regarding the new floodplain regulations are related to development costs. Are there any new substantial costs that developers will incur because of these regulations?

Nicole Fleck-Tooze: I can't think of any substantial cost, unless there would be a cost to for example elevate a site for new development. You might have to elevate an area that had not been previously shown within the floodplain area, but in turn you would be able to meet basically the minimum standards that are in place today, those standards would not change. The only possibly is it changing the boundary of the floodplain area that is identified. So in that regard I would not project that there would be substantial increases in cost.

Annette McRoy: So the near-term growth area as identified in the Comp Plan can continue on under the new standards, but not with substantial new cost?

Nicole Fleck-Tooze: That's right. There wouldn't be any change to what is required for development in the floodplain beyond what is required today, we're just making sure that we have the boundaries accurately identified and the elevations accurate.

CLOSING:

Ken Svoboda closed the meeting by thanking Nicole and Glenn for the presentation.

ATTACHMENTS:

Attachment 'A' – Slide Presentation Handout:
"Floodplain Mapping Update, Council Briefing, December 5, 2005"

Attachment 'B' – Five maps showing the streams that are part of the floodplain mapping updates.

Prepared By: Chris Koll
Chris Koll, Public Works & Utilities

A presentation slide with a dark, textured background featuring wavy, light-colored lines. The title "Floodplain Mapping Update" is centered in a large, white, sans-serif font.

Floodplain Mapping Update

Council Briefing
December 5, 2005

Slide 1

A presentation slide with a dark, textured background featuring wavy, light-colored lines. The title "Outline of Briefing" is centered in a large, white, sans-serif font.

Outline of Briefing

- Background of floodplain mapping effort
- Floodplain map updates for four stream reaches
- Items for December 12 public hearing
 - Text revisions
 - Resolutions for floodplain map updates
- Public Process

Slide 2

FEMA's Map Modernization Plan

- Working with states/communities to develop more reliable flood hazard information nationwide by 2010
- Updated maps based on latest technology and data
- Digital maps are easier to use and maintain
- GIS format can be overlaid with other map layers like land use, infrastructure, etc.

Slide 3

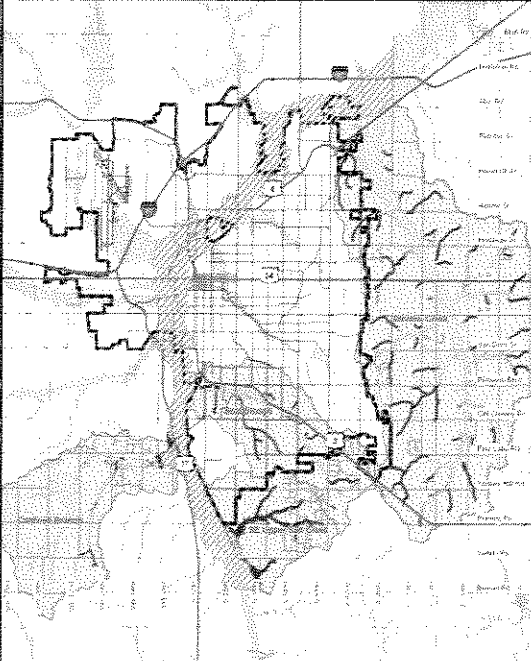
Mayor's Floodplain Taskforce Recommendations

- Take a comprehensive, watershed approach to floodplain mapping
- Recognize the community interest and responsibility for prevention of future flood damages
- Make accurate floodplain mapping a priority
- Utilize the latest technology and data available

Slide 4

Floodplain Mapping

- City is FEMA Cooperating Technical Partner (CTP)
- 5 Streams part of mapping update:
 - Bear Slough
 - SE Upper Salt Creek
 - Stevens Creek
 - Cardwell Branch
 - Salt Creek (briefing next week)
- Partnering with NRD, coordinating with watershed plans

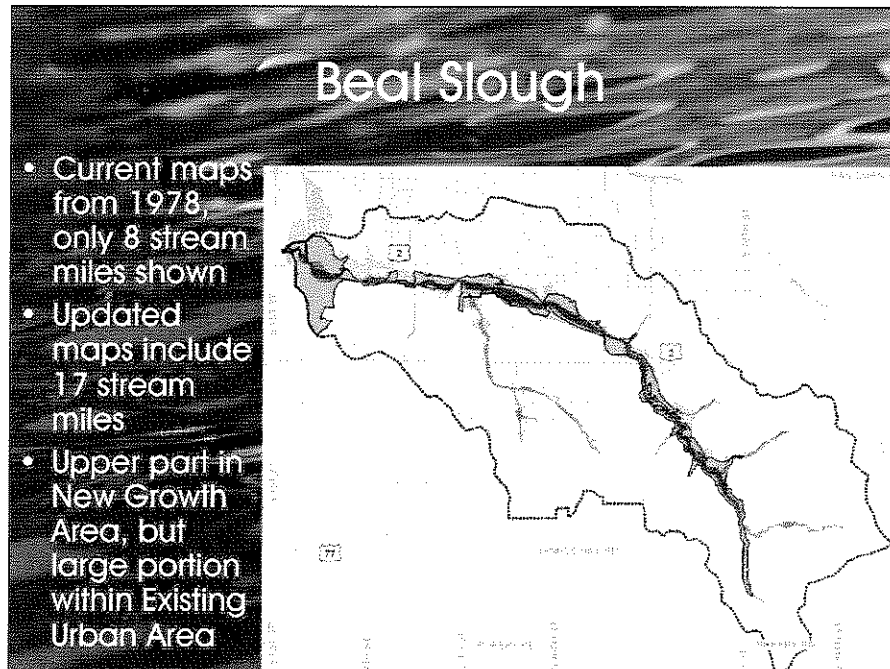


Slide 5

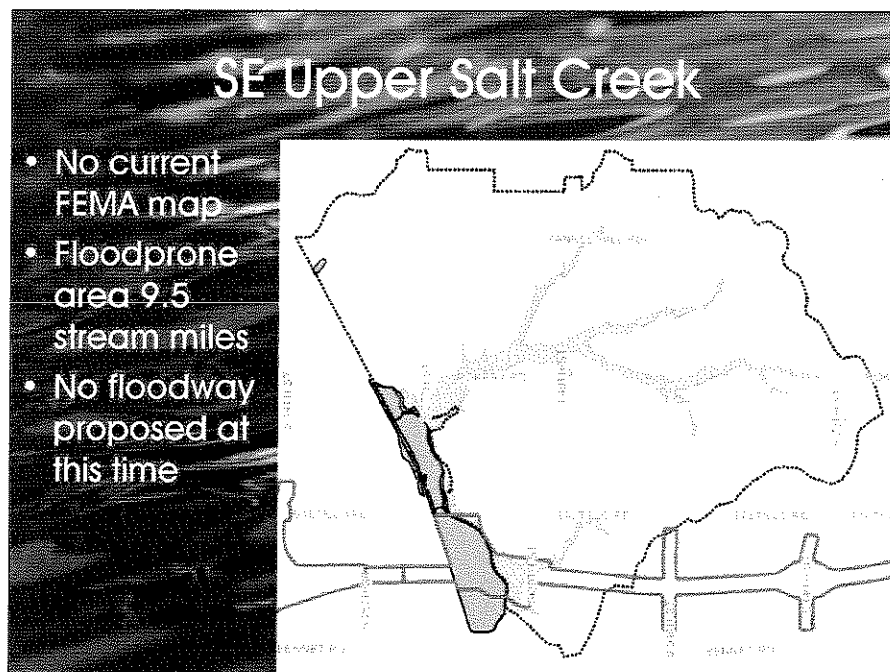
Floodplain vs. Floodprone

- Two terms to distinguish between floodplain information incorporated into FEMA maps vs. that which is not
- Both represent 100-year floodplain
- On FEMA map: called "Floodplain"
- Not yet on FEMA map: called "Floodprone Area"

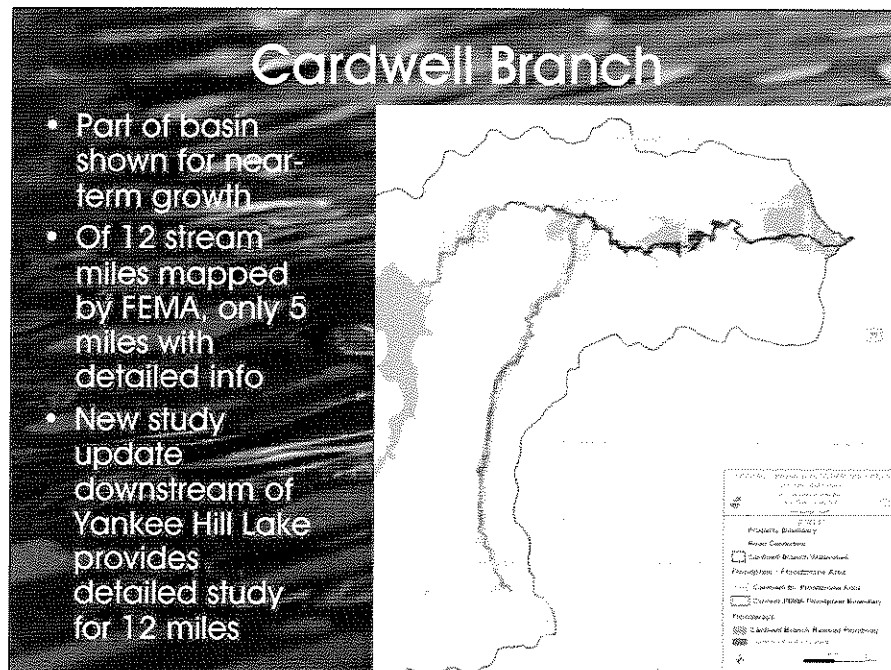
Slide 6



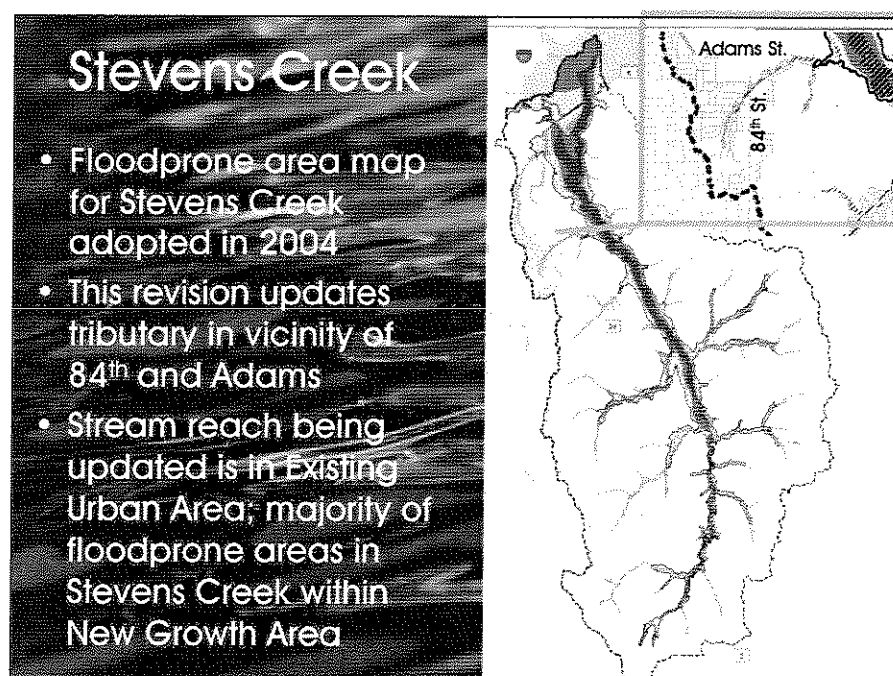
Slide 7



Slide 8



Slide 9



Slide 10

Items for 12/12 Public Hearing

- 4 ordinance items - parallel text revisions to Titles 26 & 27 regarding use of best available flood information
- 2 related resolutions to update flood maps for all or portions of streams within Existing Urban Area
- 2 resolutions to update flood maps for streams within New Growth Area

Slide 11

Background for Text Revisions

- 2004 text revisions – inconsistency in application of updated floodplain information
- Revising to consistently apply most up-to-date, accurate information
- Revisions also clarify that Floodway boundaries may be part of updated information
- Does not impact measures required for development in floodplain

Slide 12

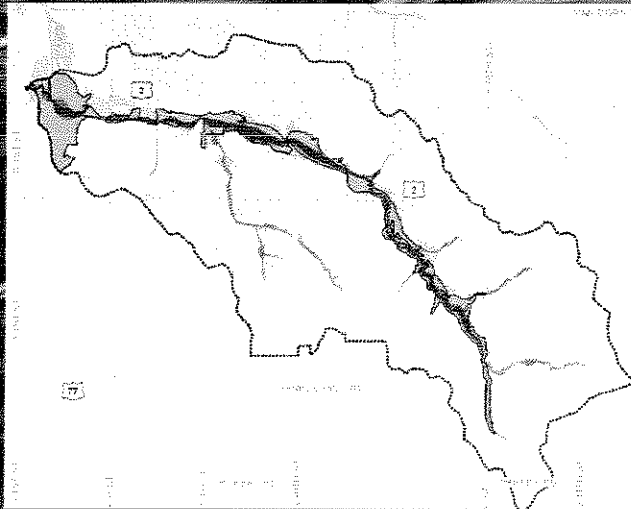
Floodplain Map Updates

- 4 resolutions for map updates
- 2 related to proposed text revisions –
 - all or portion in Existing Urban Area
 - Beal Slough
 - Updated tributary of Stevens Creek
- 2 in New Growth Areas
 - SE Upper Salt Creek
 - Cardwell Branch

Slide 13

Example: Beal Slough

- Example of necessity for text revision
- Without text change, using outdated/inaccurate information for lower reaches



Slide 14

Public Process

- Mapping for each stream reach had extensive public process
 - Beal Slough and SE Upper Salt Creek:
 - Master plan process: 3 yrs and 2.5 yrs, respectively
 - 2 open houses for map update in Nov '04 and Aug '05
 - Meetings with neighborhood groups and individuals
 - Stevens Creek: Adopted 2004 after >1-yr extensive public process; update reflects input during adoption process
 - Cardwell Branch: 3 open houses since Nov '04, numerous meetings with homeowners and individuals

Slide 15

Public Process

- Mapping and models provided to engineering community in July and August
- Elevation surveys offered as service to property owners where building on edge of flood boundary

Slide 16

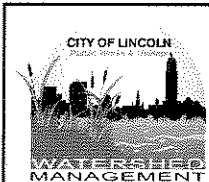
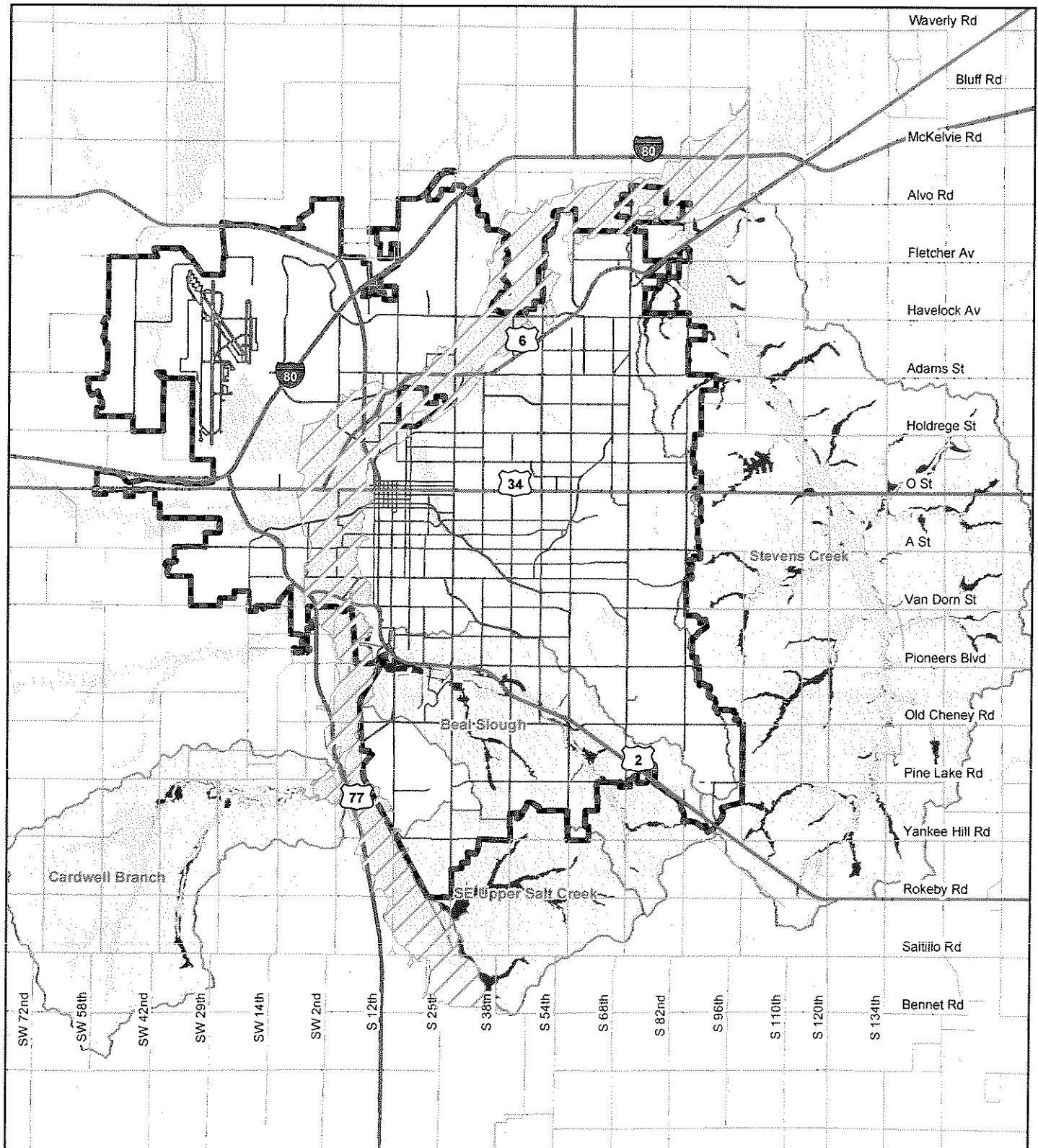
Summary

- 1-2 years before FEMA maps finalized and adopted
- Need to use most up-to-date info to better protect homes and businesses from flood hazards
- Improving accuracy of floodplain mapping consistent with policies adopted in Comprehensive Plan

Slide 17

Floodplain Mapping Update

Council Briefing
December 5, 2005



2005 Floodplain Mapping Activities

- | | |
|-------------------|-------------------------------|
| City Limit | Salt Creek Floodplain Mapping |
| Mapped Floodplain | Floodprone Areas |
| Basin Boundaries | |

